

Claims

1. (currently amended) A flame retarding and smoke suppressing additive powder, comprising, by weight:

a carbonific material 10.0-12.0%, in which the carbonific material is selected from the group consisting of dipentaerythritol, pentaerythritol polyurethane, phenol, triethylene glycol, resorcinol, inositol, sorbitol, dextrin, and starch;

a heat activated blowing agent 15.5-17.5%, in which the heat activated blowing agent is selected from the group consisting of urea, butyl urea, dicyandiamide, benzene sulfonyl-hydrazide, melamine, chloroparaffin, guanidine, and glycine;

a heat activated halogen material 12.0- 17.0% which forms a fire extinguishing halogen gas under heat, in which the heat activated halogen material is selected from the group of chlorinated paraffin by weight - 40% and chlorinated paraffin by weight - 70%;

a phosphate material 30-33.4% which forms water and phosphorous acid when reacting with ~~one or more of~~ the remaining ingredients in the powder under heat; and

an inorganic binder 23.50-29.5%, in which the inorganic binder comprises calcium aluminate cement.

2. (cancelled)

3. (cancelled)

4. (cancelled)

5. (original) The powder of claim 1 wherein the phosphate material is selected from the group consisting of ammonium polyphosphate, tris(2,3-dibromopropyl) phosphate, tris(beta-chloroethyl) phosphate, guanidine phosphate, urea phosphate, melamine phosphate, monoammonium phosphate, diammonium phosphate and mixtures thereof.

6. (cancelled)

7. (withdrawn)

8. (withdrawn)

9. (withdrawn)

10. (withdrawn)

11. (withdrawn)

12. (currently amended) A flame retarding and smoke suppressing additive powder for mixing with resins comprising, by weight:

10.0-12.0% of a carbonific comprising of dipentaerythritol, dipentaerythritol, pentaerythritol, pentaerythritol polyurethane, phenol, triethylene glycol, resorcinol, inositol, sorbitol, dextrin, and starch;

15.5-17.5% of a blowing agent comprising malamine;

12.0- 17.0 ~~19.0~~% of a halogen containing materials comprising chlorinated paraffins;

30-33.4% of a phosphorous containing material which is selected from the group consisting of ammonium polyphosphate, tris(2,3-dibromopropyl) phosphate, tris(beta-chloroethyl) phosphate, guanidine phosphate, urea phosphate, melamine phosphate, monoammonium phosphate, diammonium phosphate, and mixtures thereof; and

23.5-29.5% of an inorganic material%, in which the inorganic material comprises selected from the group consisting of calcium aluminate cement, ~~and silica flour, and glass beads.~~